MARYLAND
HEALTH CARE
COMMISSION

Practitioner Utilization:

Trends within Privately Insured Patients

2000 2001

Released March 2003

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Acknowledgements

This report would not have been possible without the assistance of private health insurance companies and health maintenance organizations that provided information (identified in Appendix A). The Maryland Health Care Commission recognizes that, in providing data, the contributors dedicated considerable staff and computer resources. The Commission is most grateful for the help of the organizations that submitted information. The Commission recognizes the increased attention that many individuals in these organizations have given to the data collection requirements this year. The many individuals who answered questions and reviewed results deserve special thanks.

The development of the Medical Care Data Base and the preparation of this report were conducted under contract with Social & Scientific Systems (SSS) of Silver Spring, Maryland, with assistance from REDA International of Silver Spring, Maryland. The overall effort at SSS was under the direction of Ms. Sophie Nemirovsky.

Dr. Christopher Hogan of Direct Research, LLC is the principal author of this report. A programming team at SSS consisting of Ms. Laurie Hamilton, Mr. Adrien Ndikumwami, Dr. Raymond Hu, Mr. John May, and Mr. Po-Lun Chou edited the payer data submissions, organized the Medical Care Data Base, and completed the numerous data analyses included in this report. Ms. Julie Kale assisted in the preparation of the report. The Commission thanks the entire SSS team.

Executive Summary

This report examines payments to physicians and other health care practitioners for the care of privately insured Maryland residents under age 65. Analysis is based on the health care claims and encounter data that most private health insurance plans serving Maryland residents submit annually to the Maryland Health Care Commission (MHCC). Data from 1999, 2000, and 2001 are used to track changes in the quantity of care and the price of care, separately, for individuals in health maintenance organization (HMO) plans and individuals in other, non-HMO plans.

Last year's Practitioner Report looked at 1999 and 2000 data, documenting the level and trend of payments for practitioner services of privately insured Maryland residents, and comparing private payers' payment rates to Medicare's rates. The main findings of last year's report were the following:

- From 1999 to 2000, practitioner spending for the privately insured increased almost 10 percent. The increase was due entirely to increases in the volume of care provided. There was no net inflation in private payment rates from 1999 to 2000.
- In 2000, private insurers' practitioner payment rates averaged 4 to 5 percent above Medicare's rates, with little difference between HMO and non-HMO plans on average.
- The gap between average private rates and Medicare rates varied widely by type of service. For visits, average private rates were slightly below Medicare's rates, while for other services, private rates were modestly to substantially higher than Medicare's rates.
- From 1999 to 2000, by major category of service, practitioner spending growth was fastest for imaging services, and slowest for primary care and vaccinations. By site of service, spending growth was fastest in hospital outpatient settings.

This year's report looks at data through 2001. Changes from 2000 to 2001 largely parallel the findings of last year's report, with a few important differences.

- From 2000 to 2001, spending growth for practitioner services was again about 10 percent, and spending growth was due entirely to growth in volume of care, not to price increases. Volume of care increased in almost all categories of service, due in large part to higher reported numbers of persons using care.

- In 2001, private rates averaged 2 percent below Medicare's rates. This was a significant change from 2000, but was due mainly to increases in Medicare's rates, not changes in rates paid by private payers. Medicare raised its physician payment rates 5 percent in 2001. Private insurers' rates, by contrast, were largely unchanged, with an estimated 2 percent average decline from 2000 to 2001 due mainly to apparent reductions in fee-for-service payments by HMOs.[1]
- For non-HMO plans, imaging remained the fastest-growing major category of service, but only by a slight margin. High rates of volume growth were observed in most categories of service other than childhood vaccinations and inpatient care. For the HMO plans, a general increase in medical specialists' services appears to have been the primary driver behind increases in the volume of care.

For the segment of the industry for which the claims data are most reliable — non-HMO plans — total reported practitioner spending grew 16 percent from 2000 to 2001, and a cumulative 28 percent from 1999 to 2001 (Table ES-1). This spending increase was due entirely to an increase in the total quantity of care provided, including increased enrollment in these plans, increased number of persons served and higher volume and intensity of care per person served. On average, practitioner payment rates for non-HMO plans were unchanged from 1999 to 2000, and declined 1 percent from 2000 to 2001.

Table ES-1: Estimated Sources of Spending Growth for Non-HMO Plans

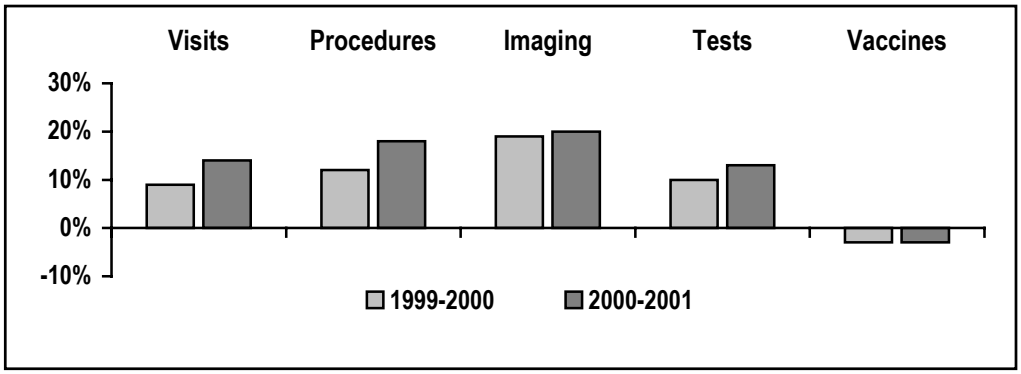
Sources of Spending Growth	Growth 1999- 2000	Growth 2000-2001	Cumulative 1999-2001
Increase in Payment Rates	0%	-1%	-1%
Increase in Reported Persons Using Services	8	8	17
Increase in Services per Reported User	0	5	5
Increase in Intensity per Service	2	3	5
Total Expenditure Increase	**10**	**16**	**28**

By type of service, volume of care increases in non-HMO plans were more broad-based in 2001 than in 2000, although patterns of growth were similar in the two years (Figure ES-1). Imaging was the fastest-growing major category of service, led by increased use of advanced imaging such as computerized tomography (CT) and magnetic resonance

[1] The trend toward declines in private rates relative to Medicare may end in 2002. In 2000 and 2001, CMS raised physician fees by 5.5 and 5 percent, respectively. In 2002, by contrast, the Centers for Medicare and Medicaid Services (CMS) reduced Medicare rates by about 4.8 percent, and the rates scheduled to become effective in March 2003 would reduce payments a further 4.4 percent. Congress is considering legislation to modify the update methodology, resulting in a 1.6 percent increase in Medicare rates for 2003, with small positive increases projected for future years.

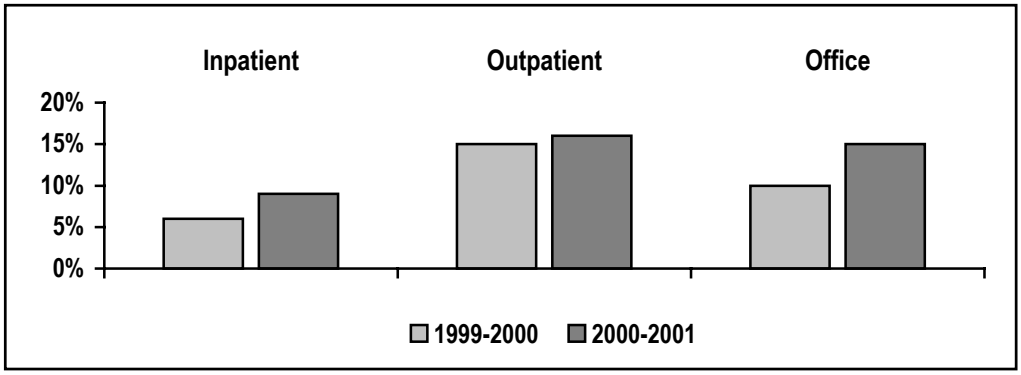
imaging (MRI) scans. As was true last year, growth in billings for pediatric vaccines was slower than growth in other services.[2]

Figure ES-1: Growth in Volume of Care (based on RVUs) for Non-HMO Plans, 1999-2000 and 2000-2001



By site of service, spending growth for non-HMO plans from 2000 to 2001 was slowest in the inpatient setting, and faster in outpatient and office sites (Figure ES-2). The slower growth in the inpatient setting matches findings from the 1999-2000 period. The fast rate of growth in the office setting is new and reflects a substantial increase over the prior period.

Figure ES-2: Spending Growth by Place of Service for Non-HMO Plans, 1999-2000 and 2000-2001

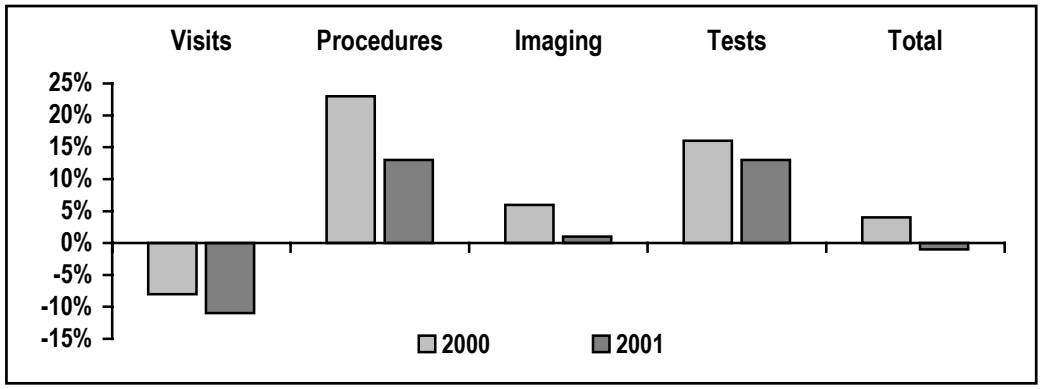


By type of service, the Medicare-to-private fee differences that occurred in 2001 paralleled those of prior years (Figure ES-3). For office visits (and some other evaluation and management services), private insurers' payment rates were below the Medicare level, while private payment rates for procedures and tests were somewhat to significantly above the Medicare level. Historically, that pattern has been typical of Medicare-versus-private fee differentials nationwide and reflects, at least in part,

[2] A small increase in the non-HMO bills for vaccine services was offset by a decline in the average price per service. For the HMO plans, most plans showed increased use of childhood vaccines, but one large payer

Medicare policies aimed at increasing payments for office visits and other evaluation and management services.

Figure ES-3: Private Non-HMO Compared to Medicare Fee Levels as Baseline, 2000 and 2001



As was true in 2000, fees for non-HMO plans in the Baltimore Metropolitan Region were lower than in other parts of the state. In 2001, non-HMO plans' fees were 5 percent above the Medicare level in the National Capital Area, but 6 percent below the Medicare level in the Baltimore area.

For HMO plans, accurate analysis of the prices paid on fee-for-service claims is possible, but analysis of the volume of care (similar to Table ES-1) is subject to many important caveats. There were large changes in the HMO market in 2001, including significant shifts of enrollment across payers. In addition, HMOs report a mix of capitated and fee-for-service care data. For capitated services, there is no payment information and no information on primary care services. These large enrollment changes and shifts between capitated and fee-for-service contracts may affect the reported volume of care.

Looking at the fee-for-service payments of HMOs, reported physician fees fell 4 percent on average from 2000 to 2001. This apparent decline was not the result of industry-wide reductions, but was due mainly to substantial reported payment changes in one large plan for services provided in the hospital inpatient and outpatient settings.[3] Excluding that plan, HMOs' rates were essentially unchanged from 2000 to 2001.

The ratio of HMO rates to Medicare rates fell for all types of services between 2000 and 2001, due mainly to the increase in Medicare's rates over this period. The change was more pronounced for procedures than for other categories of service (Figure ES-4).

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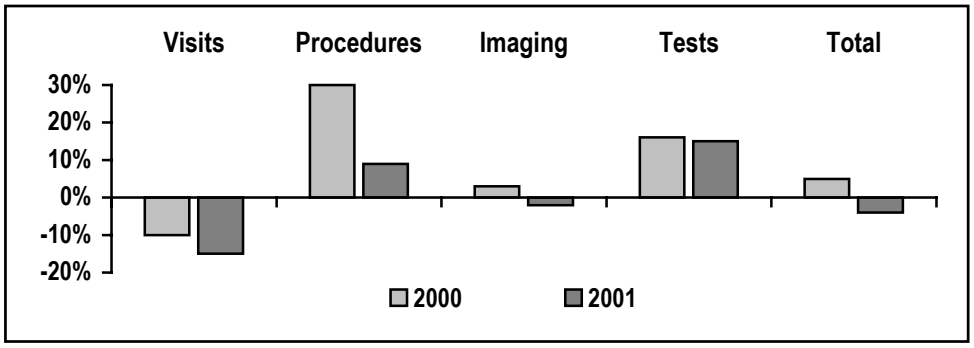
showed an offsetting decline in payments for vaccines.

[3] This plan substantially revised its method for paying capitated and noncapitated practitioner services in 2001.

Figure ES-4: HMO Fee-for-Service Payment Rates Compared to Medicare as Baseline, 2000 and 2001



The fees paid by HMO and non-HMO plans were similar in most respects, with a few significant differences. HMO rates for office visits and for childhood vaccination appear modestly lower than rates paid by non-HMO plans for similar services.

The largest difference between HMO and non-HMO rates was for payment of services performed by nonparticipating physicians; that is, physicians not under contract to the plan. For those physicians, HMOs paid substantially lower amounts per relative value unit (RVU) of care than did the non-HMO plans. This was the focus of legislation passed in 2000 (codified in Health-General Article § 19-710.1) requiring HMOs to pay nonparticipating physicians at least 125 percent of the rate paid to participating physicians. Based on the Medical Care Data Base (MCDB) data as reported by the HMOs, the fraction of HMO bills exceeding this payment minimum increased significantly between 2000 and 2001. The increase was particularly large for emergency room care, the service category accounting for the largest fraction of bills by nonparticipating physicians. By 2001, while the typical (median) HMO bill exceeded this minimum payment amount, a significant proportion of bills paid to nonparticipating physicians still appeared to fall below the statutory threshold.

On average, combining both HMO and non-HMO plans, Maryland private insurers' practitioner fees (including payments from both plan and patient) were 2 percent below Medicare's rates in 2001. This is a substantial drop from 2000, where fees averaged 4 to 5 percent above Medicare's rates. The change is due mainly to a 5 percent increase in Medicare's rates in 2001, combined with a modest 2 percent decline in reported private rates from 2000 to 2001.

1. Introduction

Health care spending grew rapidly in 2001 for Maryland and for the United States as a whole. The 12 percent increase in health care spending in Maryland in 2001 was the highest reported since the MHCC began tracking the State Health Expenditure Accounts (SHEA) in 1994, and Maryland's increase was slightly above the U.S. average.[4] Spending for physician and other practitioner services for the privately insured increased about 10 percent, in line with the overall growth in private health plan spending.

Although total practitioner services spending for the privately insured has risen substantially, fees (payment per service) of private insurers have been stable in recent years. Practitioner fees paid by Maryland private insurers were essentially unchanged from 1999 to 2000, and appear to have declined slightly, on average, from 2000 to 2001. The Maryland experience appears consistent with national trends. Nationwide, the average of private payers' fees fell slightly between 1994 and 2001.[5]

Against this backdrop of restraint on private fees, the adequacy of physician reimbursement has been hotly debated in the Maryland legislature during the past three years. Discussion has focused on establishing minimum reimbursement levels for specific groups of physicians who are obligated to provide care to all patients, including physicians working in emergency rooms and trauma centers. These physicians must accept patients regardless of insurance status. For insured patients, physicians in these settings must provide care without regard to the payment level or the existence of a contractual arrangement with a patient's third-party payer.

This is a particular concern for HMO patients, because Maryland physicians are barred from charging HMO patients for the balance of their bill beyond the amount the HMO will pay. Such balance billing of HMO patients is not permitted under Maryland law (Health-General Article § 19-710(i) (p)). This prohibition is viewed by policymakers as an important consumer protection feature of Maryland law. The no-balance-billing limitation sharpens the issue of HMO reimbursement because a noncontracting

[4] MHCC, State Health Care Expenditures: Experience from 2001 (Baltimore, MD: MHCC, January 2003)
[5] Medicare Payment Advisory Commission, Report to the Congress: Medicare Payment Policy (Washington, DC: MedPAC, March 2003).

physician is required to provide care in settings such as emergency rooms, but is limited to recovering payment from the HMO plus a small patient co-payment. In the past several years, the General Assembly has taken action to set floors on HMO payments. In 2000, the Maryland General Assembly passed legislation (codified in Health-General Article § 19-710.1) that required HMOs to reimburse noncontracting providers at the greater of 125 percent of the rate the HMO pays for the same service to a contracting provider under written contract, or the rate that the HMO paid in the same geographic area, for the same covered service, to a similarly licensed provider not under written contract with the HMO. In 2002, passage of House Bill 805 (Chapter 250 of the Acts of 2002) signaled the General Assembly's continued interest in setting minimum payment levels for a broader range of services and new interest in examining alternatives to the establishment of piecemeal physician reimbursement floors. The new legislation removed the sunset provisions on the original law and established a floor on payments for noncontracting physicians at the greater of 125 percent of the HMO's fee schedule or 100 percent of what the HMO pays any other similar licensed provider for the same specific service in a given geographic region. Recognizing the importance of protecting the state's trauma network, the legislation raised the payment floor for noncontracting trauma physicians to the greater of 140 percent of the Medicare Fee Schedule or 125 percent of the HMO's contracting rate for a given service.

The 2002 legislation requires the MHCC and the Health Services Cost Review Commission (HSCRC) to study the adequacy of private-sector reimbursement relative to provider costs and to examine the feasibility of expanding the hospital rate-setting system administered by HSCRC to include hospital-based and university physicians. An assessment on the feasibility of establishing an uncompensated care fund for physician services to parallel that for hospital services was another requirement of the new law. The two commissions will report their findings to the Maryland General Assembly by December 2004.

Opinions differ on the impact of the new laws. Many physician groups argue that the provisions in the 2000 and 2002 legislation establishing reimbursement floors have little impact because they apply only to noncontracting providers. They contend that most physicians routinely contract with many HMOs to ensure a supply of patients at their private practices. A contracting physician's reimbursement is not covered by any of these statutes.

Nonphysician groups have also sought legislative solutions to reimbursement issues. In general, these bills seek to peg payments for these practitioners to the levels private

insurers pay physicians for the same service.[6] These efforts have gathered some momentum due to the slow rate of growth in insurer payments and a trend on the part of government payers, particularly Medicare, to pay the same rate to physician and nonphysician providers when the service is in each group's scope of practice. The Maryland General Assembly has not enacted any of these proposals, although new bills appear each year.

Analyses contained in this report shed some light on these issues. It is now possible to examine how noncontracting payment rates may have changed since the 2000 legislation was enacted. The MHCC also believes that specialty designations have sufficiently improved so that it is possible to make some preliminary comparisons between provider categories on a payments-per-RVU (relative value unit) basis. This includes comparison of payment rates for physicians and nonphysician practitioners providing the same services. These comparisons must be heavily qualified because most payers continue to pay high rates relative to Medicare for procedures as opposed to cognitive services. Therefore, payments per RVU may be lower for nonphysician practitioners simply because they tend to provide fewer technical services.

Chapter 2 of this report presents an overview of growth in spending and volume of care, in aggregate and separately, for HMO and non-HMO plans. **Chapter 3** compares private payers' fees to Medicare fees, contrasts the fees paid by HMO and non-HMO plans, and looks at trends in private insurers' fees. **Chapter 4** gives a brief summary of major findings. Appendices list the payers contributing data to this report, briefly summarize methods used in this analysis, and show the Maryland regions.

TECHNICAL BACKGROUND: SUMMARY OF DATA, METHODS, AND CAVEATS FOR THIS REPORT

Each year since 1996, the MHCC has published a Practitioner Report describing the use of insured practitioner services by residents and the associated payments by insurance companies and recipients for those services, as required by Health-General Article § 19-134(g)(2). This report summarizes trends in the volume and pricing of the services of physicians and other practitioners received by privately insured non-elderly residents of Maryland.

[6] HB 278 and SB 150 introduced in the 2003 session of the General Assembly provide that if a service is within the lawful scope of practice of a licensed podiatrist, the insured or any other person covered by or entitled to reimbursement under the health insurance policy or contract is entitled to the same amount of reimbursement for the service regardless of whether the service is performed by a physician or a licensed podiatrist.

Tables and figures in this report are based on services and payments captured in the Maryland Medical Care Data Base (MCDB). The MCDB contains extracts of insurance claims and encounter data submitted by most private insurers in Maryland. Insurance companies and HMOs meeting certain criteria[7] are required to submit information to the Commission under COMAR 10.25.06 on health care practitioner services provided to Maryland residents. For calendar year 2001, the Commission received usable data from 30 payers, including all major health insurance companies.[8]

Each practitioner service generates a separate record in the MCDB. Patients are identified only by an encrypted number generated by each payer. Insurers use a standard format for reporting the data. In addition to identifying the service provided, each record shows the payments from the insurer and patient (for noncapitated care), patient age and county of residence, physician specialty, and other attributes of care such as site of service and type of coverage.

Interpreting the results of this report requires an understanding of the limitations of the MCDB and of how the MCDB is used to track changes in payments, services, RVUs of care, number of persons receiving services, and the fee level (average payment per RVU of care). This report focuses on the following quantities:

- **Total payments** for practitioner care include payments from the insurer and patient, including any deductible, coinsurance, and balance billing amounts paid directly out-of-pocket by the patient and reported on the claims data.
- **Count of services** is a simple count of the number of services provided to patients, without regard to the cost, complexity, or intensity of those services. It is, in effect, a count of the number of claims or number of items that were billed.
- **Total RVUs of care** is a measure of the quantity of care, where more complex (and typically more costly) services have higher RVUs. It is a more sophisticated measure of the quantity of care than a simple count of services. Medicare's physician payment system was used as the source of information on RVUs for services.
- **Count of service users** is based on the encrypted patient identifiers reported by the payers. Because payers may use different numbering systems for their different insurance products, the count is done separately for HMO capitated data, HMO fee-for-service data, and non-HMO data.
- **Average fee level or payment per RVU** is calculated from total payments divided by total RVUs. This is the per-unit price of practitioner care, using RVUs to

[7] The companies are licensed in the State of Maryland and collect more than $1 million in health insurance premiums.
[8] A number of small payers received waivers from contributing data, but these payers together account for less than 1 percent of total health insurance premiums reported in Maryland.

measure the units of care. This figure will be higher in areas where insurers' fee schedules are higher and will increase when insurers raise their fee schedules.

The comparison between the *level* of Medicare and private fees in this report is based on total payments divided by total RVUs of care. The Medicare RVUs provide a common scale for assessing the value of each procedure. Each service has its associated private payment and RVU, and the analysis of prices is based on private payment per RVU compared to Medicare.

The analysis of *trends* in private fees, by contrast, is based on price indices constructed solely from the private plan data. For that analysis, the value of a procedure is not based on the Medicare RVU standard, but instead is based on the average private payment for that procedure. As is typical with analysis of price index data, the value of the price index is set to 1.00 in the initial year of data (1999), and the price level in subsequent years is expressed relative to a value of 1.00 in the base year. For example, a 2 percent inflation in rates between 1999 and 2000 would result in a price index value of 1.02 in 2000.

The remainder of this report analyzes three different aspects of the MCDB data: (1) the price level (payment per RVU), (2) the growth in payments for non-HMO plans, and (3) the growth in service use (total RVUs) for HMO plans. The following caveats apply to these analyses.

The results shown in this report are only as reliable as the data they are based on. The MCDB has evolved substantially since its inception, and the reliability of payers' data reporting continues to improve. Changes in payers' data reporting practices may affect the results, sometimes in unpredictable ways. The impact of these data reporting variations differs across the analyses presented here.

Data reporting issues matter least for the analysis of payment per RVU. In general, each individual claim record contains all the data needed to calculate a price for each service. Variations in the total number of claims reported should have only a small effect on estimated price levels. Data that appear grossly inaccurate can be screened out without distorting the estimated payment levels. (Methods used to screen the data are reported in Appendix B.)

Analysis of spending growth for the non-HMO plans will be only moderately affected by reporting variations. In general, the claims data should reflect all care provided by these plans. Compliance with data reporting requirements should be good, as these fee-for-service plans already have claims data for the services provided to their enrollees.

Numerous significant caveats apply to the analysis of total volume of care provided by HMO plans. Service use is reported differently for fee-for-service and capitated specialty care. Capitated primary care services are not reported. Payers may show large changes in reported service use that may or may not reflect more complete reporting. The HMO data should be interpreted with caution.

Finally, analysis of payment rates in this report refers only to services paid on a fee-for-service basis. Changes in HMO capitation rates are not considered when measuring the level or trend in fees paid per service.

2. Trends in Total Spending and Volume of Care

This section of the report shows growth in spending and volume of care in total for all private plans, then in detail separately for non-HMO and HMO plans. The volume of practitioner care (measured by total RVUs) rose 17 percent for non-HMO plans and 8 percent for HMOs. This volume growth reflects both the underlying change in enrollment and ongoing increase in the number and complexity of services provided per enrollee.

In aggregate, the substantially higher rate of growth for the non-HMO plans is qualitatively consistent with spending and enrollment data reported in the 2001 SHEA. The 2001 SHEA showed an 11 percent increase in private non-HMO enrollment and a 9 percent reduction in private HMO enrollment. These enrollment changes would explain the higher growth rate in the non-HMO plans, and suggest that volume of care per enrollee may have risen somewhat faster in HMO than in non-HMO plans.[9]

The spending increase for non-HMO plans over this period has two main features. First, changes in fee levels (prices) play almost no part in the spending changes, either in the aggregate or for any of the detailed spending categories. Fee levels were not only stable on average, they were stable for most individual services. Second, spending growth was higher across-the-board. It is difficult to attribute any large fraction of the increase to any particular category of service or practitioner specialty. There were modest differences across service types. Spending for imaging services and automated laboratory tests grew faster than average, spending for minor procedures grew much faster than spending for major procedures, spending for medical specialists grew faster than spending for surgeons, and growth in spending in outpatient settings including physician offices was much faster than growth in spending for hospital inpatient care.

The HMO data for 2001 show a less clear picture, due at least in part to possible changes in data reporting between 2000 and 2001. Patterns of spending growth for the HMO plans are quite different from those of the non-HMO plans. Growth was

[9] The match between the SHEA reporting categories and those used here is not exact. The high apparent growth in services per enrollee in HMO plans may be due, in part, to differences between methods for counting HMO and non-HMO enrollees in the SHEA and in the MCDB.

concentrated in specialist services outside of office-based locations and in major procedures.

OVERVIEW OF PAYMENTS, SERVICES, AND USERS REPORTED BY THE PLANS

Table 2-1 shows MCDB totals for payment, services, and users of care by type of plan and region. These are for privately insured under-65 patients only, and have been subject to additional screens described in Appendix B. The table shows both payment and RVUs for services paid on a fee-for-service basis, and RVUs only for services paid on a capitated basis. All payers and services that passed routine data quality edits are included in this table.

For the non-HMO plans, spending grew 16 percent, reported users of care increased 8 percent, and payments per user increased 7 percent.[10] The high growth in reported users likely reflects, in part, the estimated 11 percent increase in enrollment in these plans over this period.[11]

For the HMO plans, total volume of care rose at a substantially slower pace. Volume rose 8 percent for HMO services paid on a fee-for-service basis, and 7 percent for care paid on a capitated basis. This slower growth undoubtedly reflects, in part, the loss of HMO enrollees between 2000 and 2001.

By region, growth for non-HMO plans was relatively uniform. For the HMO plans, by contrast, there appears to have been substantial substitution between fee-for-service and capitated care, with growth rates for the two separate categories of care varying widely across areas. On net, the regional composition of services and spending reported in 2001 is similar to the 2000 distribution. For the non-HMO claims and the HMO capitated data, the Baltimore Metropolitan Area accounts for more payments, services, and users than any other region. For the fee-for-service claims of HMOs, by contrast, the largest single region is the National Capital Area.[12]

[10] As noted in the prior section, the count of users may be subject to some uncertainty. Percentage changes in these tables will not exactly sum to the change in spending due to rounding error, and because the changes should be multiplied (not added) to arrive at total spending.
[11] MHCC, ibid.
[12] These findings are consistent with the market composition in the two regions. In Baltimore, Freestate, an HMO with large market share in the area, more frequently negotiates capitated arrangements with large specialty practices. In the National Capital Area, MAMSI HMOs typically pay specialists on a fee-for-services basis.

Table 2-1: Practitioner Services Data Reported by Plan Type and Region, 2000-2001

PLAN TYPE AND REGION	2001 DATA					PERCENT CHANGE, 2000-2001				
	Payments ($000s)	RVUs (000s)	Services (000s)	Users (000s)	Pymts Per User	Payments	RVUs	Services	Users	Pymts per User
Non-HMO Plans										
Total	$1,021,505	26,671	17,863	1,249	$818	16%	17%	14%	8%	7%
National Capital Area	310,165	7,289	4,726	322	964	18	19	16	6	11
Baltimore Metro Area	510,215	14,099	9,633	652	783	15	15	12	9	5
Eastern Shore	60,018	1,553	1,023	82	731	17	20	20	9	7
Southern Maryland	59,766	1,646	1,107	80	750	21	25	17	12	8
Western Maryland	81,340	2,083	1,374	114	716	15	16	11	5	10
HMO Plans, Fee-for-Service Data										
Total	$438,835	11,802	6,078	798	$550	3	8	-1	-1	4
National Capital Area	192,739	5,025	2,483	302	638	6	10	2	-3	9
Baltimore Metro Area	153,972	4,281	2,288	325	474	-3	3	-8	-1	-2
Eastern Shore	27,634	725	380	51	538	11	15	9	4	6
Southern Maryland	25,748	699	341	48	538	-4	6	-8	5	-9
Western Maryland	38,740	1,072	586	71	543	22	26	18	5	16
HMO Plans, Capitated Services										
Total	-----	5,128	6,446	831	-----	-----	7	29	16	-----
National Capital Area	-----	1,886	3,019	366	-----	-----	43	44	25	-----
Baltimore Metro Area	-----	2,367	2,376	314	-----	-----	-1	20	14	-----
Eastern Shore	-----	292	330	51	-----	-----	-43	-14	-27	-----
Southern Maryland	-----	310	377	51	-----	-----	50	68	66	-----
Western Maryland	-----	272	344	50	-----	-----	-24	2	1	-----

Note: A "-----" means not applicable. Count of HMO persons served is based on unique patient identifiers separately for individuals with fee-for-service claims and capitated encounter data. Various edits of the database exclude about 15 percent of spending from the data shown in this table.
Source: Analysis of 10 percent sample of persons, Maryland MCDB 2000-2001.

SPENDING TRENDS IN NON-HMO PLANS

This section looks in detail at spending trends for non-HMO plans from 2000 to 2001. Where Table 2-1 looked broadly at aggregate increases in spending, this section looks in detail by type of service, practitioner specialty, and other factors. Table 2-2 shows detailed information on spending growth in the non-HMO plans. For these plans, reported data should reliably capture most or all care provided, and spending information is available for each service provided. The two left-most columns show spending and share of 2001 total spending, while the three right columns show growth in total spending divided into change in prices (payment per RVU) and quantity (total RVUs of care). Results are described below.

Table 2-2: Spending Growth in Non-HMO Plans, 2000-2001

Classification	2001 Data		Percent Change, 2000-2001		
	Payments ($millions)	Percent of Payments	Total Payments	Price (Payment per RVU)	Quantity (RVUs)
Total	$1,022	100%	16%	-1%	17%
Region					
National Capital Area	$310	30	18	-1	18
Baltimore Metro Area	510	50	15	-1	16
Eastern Shore	60	6	17	-3	19
Southern Maryland	60	6	21	-3	26
Western Maryland	81	8	15	-1	16
Place of Service					
Inpatient	$120	12	9	0	9
Office	675	66	15	-2	17
Other *	59	6	51	1	50
Outpatient	168	16	16	1	15
Coverage Type					
Individual Plan	$71	7	27	2	24
Employer–Self-funded	273	27	9	-2	11
Employer–Insured	112	11	13	-1	15
Public Employee	394	39	17	-1	19
CSHBP	167	16	24	0	23
Taft-Hartley Trust	4	0	-2	1	-4
Type of Service					
Evaluation/Management	$424	41	14	0	15
Procedures	290	28	14	-4	18
Imaging	147	14	20	0	20
Tests	101	10	15	2	11
Childhood Immunizations	7	1	-3	0	-3
Other/not grouped	54	5	43	-4	48
Physician Participation Status					
Participating	$853	89	20	0	20
Nonparticipating	104	11	-7	3	-10

*High growth in this category reflects a change in data reporting by a single large payer and should be ignored.
Note: Small categories and missing services are omitted from some categories. CSHBP is Comprehensive Standard Health Benefit Plan.

Total and by Region. In aggregate, practitioner spending by non-HMO plans rose about 16 percent. Spending growth was reasonably uniform across Maryland regions, varying from a 15 percent increase in the Baltimore Metro and Western Maryland regions to a reported 21 percent increase in Southern Maryland. In total, the average value of fees — payments per RVU — fell 1 percent. Growth in spending was due to increased volume of care, with total RVUs rising by about 17 percent.

The lack of fee increases continues a trend first noted in the 1999 Practitioner Report, which examined the change from 1998 to 1999. On average, practitioner fees paid by non-HMO plans in Maryland remain more or less unchanged from 1999 to 2001.

Place of service. Spending and service use grew more slowly than average in the hospital inpatient setting, continuing the trend shown last year. Rapid growth is no longer limited to hospital outpatient services as was observed last year. Instead, high growth occurred across-the-board in hospital outpatient and physician office settings. (High growth in the "other" category reflects a change in data reporting by one large payer and should be ignored.)

Coverage type. From 2000 to 2001, reported service use grew fastest for the types of insurance purchased by individuals and small employers. The highest spending growth was reported for individually purchased (nongroup) insurance coverage, followed by growth in use of services under comprehensive standard health benefit plan (CSHBP) policies. (CSHBP policies are offered to small employers in Maryland.)

The apparent high spending growth of the individual-purchase and small-group plans appears to reflect, at least in part, improvements in payers' data reporting. The MCDB data suggest high growth in individual-purchase and CSHBP policies in non-HMO plans, widely divergent rates of growth for such policies in HMO plans, and below-average growth in group-purchase plans. In fact, however, covered lives in the CSHBP policies, for all insurers, declined slightly in 2001 and in general the individual-purchase and small-group markets are not seen to be growing state-wide.[13] Thus, the MCDB data appear at odds with other sources, and the large changes shown here may reflect, in part, changes in payers' reporting of the type of coverage.

Among the other types of employer-sponsored coverage, the data suggest a modest reversal of the shift among employers from insured to self-funded plans that was observed last year. In 2001, spending growth under employer-sponsored insured plans was higher than that of self-funded coverage. Spending growth for public employees was also above average.

Aggregate type of service. In general, the increased volume of care was more broad-based this year than last. Imaging services grew slightly faster than other major categories, led by increases in high-tech imaging, but the difference in growth rates between imaging and other categories is far smaller this year than last. Reported spending for childhood immunizations continues to decline, similar to findings in the 1999 and 2000 practitioner reports. There has been no reported decline in

[13] Maryland Health Care Commission, "Annual Review: Comprehensive Standard Health Benefit Plan, for Year Ending December 31, 2001," November 26, 2002, accessible at http://www.mhcc.state.md.us/cshbp/_cshbp.htm.

immunization rates or birth rates for Maryland, so this persistent finding may reflect an artifact of data reporting or other as-yet undiscovered technical factors.[14]

Participation status. Spending on services of nonparticipating physicians declined from 2000 to 2001, while spending growth for participating physicians' services was above average. This shift of spending from nonparticipating to participating physicians probably reflects broader physician participation in plan networks in 2001. On a payment per RVU basis, nonparticipating physicians experienced a small increase in 2001, unlike other physicians.

Specialty. Table 2-3 shows spending growth by practitioner specialty for all identifiable specialties accounting for at least 1 percent of spending in 2001. Nonphysician practitioners (defined here to include independent laboratories) accounted for 18 percent of practitioner spending and showed spending growth similar to that of physicians. Among physicians, spending on medical specialties combined grew somewhat faster than spending on all other types of physicians. This is consistent with the type-of-service analysis above, where spending growth in outpatient settings (including physician offices) was substantially faster than growth in inpatient settings (where surgeons, obstetricians, and others typically work).[15]

[14] Several factors might plausibly be affecting the reported use of pediatric vaccinations, but could not be directly identified in these data. These include receipt of vaccination in facilities including hospital outpatient departments and clinics (where no practitioner bill is generated for the vaccine), and the potential availability of free government-supplied vaccines.

[15] Physicians whose specialty could not be classified were omitted from this table. This "unclassified" category shrank about 4 percent between 2000 and 2001, but still accounted for about 15 percent of 2001 payments. The reduction in the number of "unclassified" physicians accounts for the fact that none of four major specialty categories is "below average". Each identified specialty group had spending growth above the average spending growth for all services.

Table 2-3: Spending Growth by Practitioner Specialty, Non-HMO Plans, 2000-2001

Classification	2001 Data		Percent Change, 2000-2001		
	Payments ($millions)	Percent of Payments	Total Payments	Price (payment per RVU)	Quantity (RVUs)
Nonphysician Practitioners	**$179**	**18%**	**19%**	**-3%**	**23%**
Independent Laboratory	46	4	6	1	5
Physical Therapist	30	3	38	-7	47
Chiropractor	29	3	12	-2	14
Psychologist	17	2	0	0	0
Clinical Social Worker	14	1	12	-4	17
Podiatrist	13	1	12	-4	17
Physicians, Total	**$684**	**67**	**21**	**-1**	**22**
Physicians, Medical Specialties	360	35	24	0	24
Internal Medicine	83	8	31	-2	34
Pediatrics	57	6	20	2	17
Family Practice	41	4	26	2	22
Cardiology	34	3	24	3	21
Emergency Medicine	22	2	25	5	19
Oncology	22	2	48	-6	59
Dermatology	21	2	21	-3	24
Gastroenterology	20	2	26	3	22
Psychiatry	17	2	15	-3	18
Neurology	9	1	17	1	16
Allergy & Immunology	7	1	15	-1	17
Endocrinology Medicine	6	1	-9	0	-10
Physical Medicine & Rehab	5	1	22	-1	24
Physicians, Other Specialties	189	18	18	-1	20
Obstetrics/Gynecology	76	7	18	-2	20
Pathology	19	2	26	2	23
Radiology	94	9	17	-1	19
Physicians, Surgical	135	13	17	-1	19
Orthopedic Surgery	38	4	20	0	20
General Surgery	27	3	27	1	27
Ophthalmology	20	2	11	-7	19
Otology/Laryngo/Rhino	15	2	13	-2	17
Urology	13	1	6	-4	11
Surgical Specialty	10	1	14	3	10
Plastic Surgery	7	1	23	-3	27

Note: Fifteen percent of spending was for practitioners whose exact specialty could not be assigned. These practitioners are omitted from this table. In addition, detail does not add to totals because specialties accounting for less than 1 percent of spending are not shown.

Table 2-4 shows spending by detailed type-of-service categories. Looking across categories of service, the lowest growth rates were for hospital inpatient visits and major procedures. High rates of growth were reported for advanced imaging, minor procedures, and automated multichannel laboratory tests.

Table 2-4: Spending Growth by Detailed Type of Service, Non-HMO Plans, 2000-2001

Category	2001 Data		Percent Change, 2000-2001		
	Payments ($millions)	Percent of Payments	Total Payments	Price (payment per RVU)	Quantity (RVUs)
Imaging, Standard (X-ray)	$46	5%	14%	1%	13%
Imaging, Advanced (CAT, MRI, Cardiac)	63	6	30	0	30
Imaging, Echography	36	4	14	0	14
Visits, Office	228	22	14	2	12
Visits, Inpatient/Nursing Home/Home	25	2	7	0	6
Visits, Emergency Room	26	3	18	4	13
Visits, Speciality (Consults, Psychiatry, Other)	144	14	15	-2	18
Childhood Immunizations	7	1	-3	0	-3
Procedures, Major	97	9	10	0	10
Procedures, Minor/Ambulatory	147	14	18	-5	24
Procedures, Endoscopies	44	4	13	0	13
Tests, Automated General Profile Lab Tests	14	1	27	-1	28
Tests, Other Lab Tests	60	6	13	4	9
Tests, Other (EKG, Stress Test, other)	27	3	12	1	11
Miscellaneous and Not Grouped	54	5	38	-4	44

VOLUME OF SERVICE GROWTH IN HMO PLANS

This section looks at trends in volume of care in the HMO plans (Table 2-5). Technical factors make it difficult to interpret the HMO data precisely. Not only does growth in *reported* services reflect continuing improvements in the amount and quality of data, but changes in plans' contractual arrangements may shift data among plan types and reporting categories.

Region. The reported HMO service data show large swings in volume of service across regions. These differences may reflect, to some degree, changes in data reporting. In some of these regions, for example, the reported proportion of care that was capitated changed substantially. Compared to the other analyses below, the regional analysis reflects relatively little pooling of data across insurers and results appear to reflect changes in individual insurers' data reporting practices.

In Total and by Region. Totals from this table are slightly different from Table 2-1 due to screens applied to the data. Laboratory tests were removed from this analysis because changes in the reporting of those tests (particularly under capitation) is disproportionate to the actual use of such tests overall. Overall growth in RVUs of care was 7 percent. The pattern of growth was highly uneven across regions of Maryland, reflecting in part the turbulence in HMO enrollment during this period.

Place of Service. The trend in volume growth for HMOs continues and exaggerates patterns observed last year. Last year, HMO data showed above-average growth in care

in the hospital inpatient setting. This year, hospital inpatient and all sites other than physicians' offices showed high rates of growth. This is in complete contrast to the non-HMO data, where inpatient services have grown consistently more slowly than services in other settings.

Coverage type. HMO service use suggests that within employer-sponsored plans, self-funded coverage was growing at the expense of insured products.[16] The remainder of the coverage data are puzzling and may reflect changes in data reporting. There was an apparent sharp decline in individual-purchase insurance, and a sharp increase in use of CSHBP plans. The CSHBP increase is contrary to other studies demonstrating that enrollment in CSHBP plans fell in 2001.

Table 2-5: Volume Growth in HMO Plans, 2000-2001

	RVU (1000s)	Percent of Total	Percent Change 2000-2001
Total	15,279	100%	7%
Region			
National Capital Area	6,122	40	16
Baltimore Metro Area	6,087	40	1
Eastern Shore	928	6	-15
Southern Maryland	914	6	15
Western Maryland	1,228	8	11
Place of Service			
Inpatient	1,901	12	41
Office	10,748	70	-2
Other	823	5	24
Outpatient	1,807	12	38
Coverage Type			
Individual Plan	547	4	-60
Employer–Self-funded	2,962	19	48
Employer–Insured	5,484	36	-14
Public Employee	3,836	25	38
CSHBP	2,400	16	32
Type of Service			
Evaluation/Management	7,456	49	4
Procedures	3,911	26	6
Imaging	1,982	13	4
Tests	434	3	10
Childhood Immunizations	175	1	-3
Other/not grouped	1,321	9	33
Physician Participation Status			
Participating	14,260	93	8
Nonparticipating	831	5	6

[16] Maryland HMOs cannot directly offer self-funded products to employers but can contract with employers to allow provision of care through the HMO's network of providers.

Aggregate and detailed type of service. The HMO data by type of service are consistent with the apparent shift to non-office settings. Growth was lowest for evaluation and management services and imaging.

Participation status. Services of participating and nonparticipating practitioners grew at roughly equal rates. This is in sharp contrast to the non-HMO data, where there was a pronounced shift from nonparticipating to participating practitioners.

3. Payment Rates in Private Plans and Medicare

This section of the report examines private payers' average fee level and compares private fees to the fees paid by Medicare.[17] Medicare's resource-based fee schedule provides a uniform framework for comparing the average level of Medicare and private practitioner fees, both regionally and by type of service.

Last year's Practitioner Report showed that private payers' practitioner fees in Maryland were, on average, just slightly higher than Medicare's rates in 2000. From 2000 to 2001, Medicare increased physician fees by about 5 percent. Private payers' fees, by contrast, fell slightly over that period. As a result, the average private payer's fees in 2001 were slightly lower than Medicare's rates. As was true last year, however, this varies substantially by type of service.

The private-to-Medicare comparison reflects, in part, changes in Medicare's physician payment methods from year to year. We can, however, compare private payers' rates over time without reference to Medicare by constructing a price index or looking at average payments for some common procedures. This gives an analysis of private rates that is independent of changes in Medicare's physician payment system and demonstrates directly that private rates fell slightly between 2000 and 2001, on average.

RECENT STUDIES OF MEDICARE AND PRIVATE PHYSICIAN FEES

The Medicare program provides a convenient national and local reference for prices for practitioners' services. Medicare is a large purchaser of practitioners' services in all geographic areas, and accounts for between one-quarter and one-half of revenue for

[17] Throughout this report, the terms "fee" and "payment per service" mean the total payment physicians receive for care, including payments from the insurer and any deductible, coinsurance, and balance billing amounts (for nonparticipating physicians) paid directly by the patient.

most specialties.[18] Medicare's fees are public information and have become the most common benchmark against which private payers' fees are compared.

Last year's Practitioner Report summarized the existing studies comparing Medicare and private payers' physician fees. On average, for the nation as a whole, Medicare's rates have historically been significantly lower than the average private payers' rates. This varies by region (higher or lower across states), by type of service (Medicare rates are higher for office visits and similar services, lower for procedures and tests), and by payer (HMOs tend to have lower rates than other payers, on average).

A recent study for the Medicare Payment Advisory Commission tracked the "gap" between Medicare and average private physician fees from 1993 through 2001. Over that period, private payers' physician payment rates fell, mainly due to the shift of enrollment out of high-paying traditional indemnity insurers into lower-paying managed care plans. Medicare's rates, by contrast, rose roughly in proportion to the underlying inflation in physicians' costs. The result was a steady narrowing of the "gap" between Medicare and private rates nationwide, with Medicare rates rising from 61 percent of typical private rates in 1993 to 82 percent of typical private rates in 2001. The Medicare fee reduction in 2002, and the slight shift of enrollment out of HMOs and into better-paying plans undoubtedly have increased the Medicare-to-private fee "gap" somewhat after 2001.[19]

PAYMENT RATES

Table 3-1 shows the difference between private fee levels and Medicare rates for 2001, for both non-HMO plans and the fee-for-service claims of HMO plans. The analysis of prices produces several interesting findings.

First, averaged across all areas and claims, private payers in Maryland pay practitioner fees that were, in 2001, slightly lower than Medicare's rates, on average. The estimated total payment per RVU for non-HMO plans was 1 percent below the Medicare level, and for HMO plans was 4 percent below the Medicare level.

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[18] Medicare's share of practice revenue is substantially below 25 percent only for obstetrics, pediatrics, and psychiatry. See *Physician Marketplace Statistics 1997/1998*, ML Gonzalez and P Zhang, Editors (Chicago: American Medical Association Center for Health Policy Research, 1998).

[19] Hogan, C, Medicare Physician Payment Rates Compared to Rates Paid by the Average Private Insurer, 1999-2001, Draft project report to the Physician Payment Review Commission, November 27, 2002, and Medicare Payment Advisory Commission, *Report to the Congress: Medicare Payment Policy* (Washington, DC: MedPAC, March 2003).

Table 3-1: Payment Rates for Private Non-HMO and HMO Fee-for-Service Claims versus Medicare, 2001

	Medicare	Non-HMO Plans			HMO Plans		
	Payment per RVU	% of Payments	Payment per RVU	% Diff from Medicare	% of Payments	Payment per RVU	% Diff from Medicare
Total	$38.79	100%	$38.30	-1%	100%	$37.18	-4%
Region							
National Capital Area	$40.41	30	$42.55	5	44	$38.36	-5
Baltimore Metro Area	38.39	50	36.19	-6	35	35.97	-6
Eastern Shore	37.37	6	38.64	3	6	38.11	2
Southern Maryland	37.98	6	36.30	-4	6	36.85	-3
Western Maryland	38.58	8	39.06	1	9	36.12	-6
Type of Service							
Evaluation and Management	a	41	$34.34	-11	39	$32.89	-15
Procedures	a	28	44.02	13	32	42.20	9
Imaging	a	14	39.35	1	13	37.90	-2
Tests	a	10	43.94	13	6	44.55	15
Childhood Immunizations	a	1	45.59	18	1	37.12	-4
Other/Not Grouped	a	5	34.08	-12	8	37.35	-4
Place of Service							
Inpatient	a	12	$47.75	23	18	$46.02	19
Outpatient	a	16	48.18	24	17	47.89	23
Office	a	66	34.77	-10	57	32.50	-16
Other	a	6	46.40	20	8	41.94	8
Physician Participation							
Participating	a	84	$36.31	-6	89	$36.19	-7
Nonparticipating	a	10	60.24	55	10	48.96	26
Unknown Status	a	4	42.96	11	2	39.78	3

Note: An "a" means that the state average Medicare payment per RVU is assumed for these calculations.

Second, there is typically little difference in the average price levels of Maryland HMO and non-HMO fee-for-service claims, with HMOs tending to pay slightly less across-the-board. The significant exceptions to that rule are the following:

- Non-HMO plans pay higher rates than HMO plans in the National Capital Area and in Western Maryland.
- HMOs appear to pay substantially less for fee-for-service payments for childhood vaccines.
- Non-HMO plans report paying substantially higher rates to nonparticipating physicians than do HMO plans.

Third, a significant difference from last year's Practitioner Report is the *lack of* payment differences by site of service in 2001. Last year, it appeared that HMOs paid substantially higher rates for hospital-based care than did non-HMOs, based on the payment rates reported on the MCDB. Looking back at earlier data, the high payments for HMO fee-for-service payments in hospital settings were largely due to high rates reported by one large payer. For 2001, that payer reported a revised method for paying capitated providers, and also reported a substantial drop in payment rates for hospital-based services. Consequently, the HMO-non-HMO differential for hospital-based care essentially disappeared in 2001.

Fourth, as noted last year, private rates are lower than Medicare rates for evaluation and management services such as office visits, but typically exceed Medicare rates for other services. On net, the average rates are close to Medicare's rates only because evaluation and management services constitute such a large fraction of all privately paid care.

Finally, payments to nonparticipating physicians boost the overall estimated payment rate, particularly for the non-HMO plans. Many payers report total payments for nonparticipating physicians that are similar to billed charges. In particular, the data show that HMO and non-HMO plans paid roughly similar rates to their participating physicians. The higher average rates in non-HMO plans are due entirely to higher rates paid to nonparticipating physicians. Non-HMOs paid nonparticipating physicians on average 155% of the Medicare rate, while HMOs reimbursed these providers at 126%.

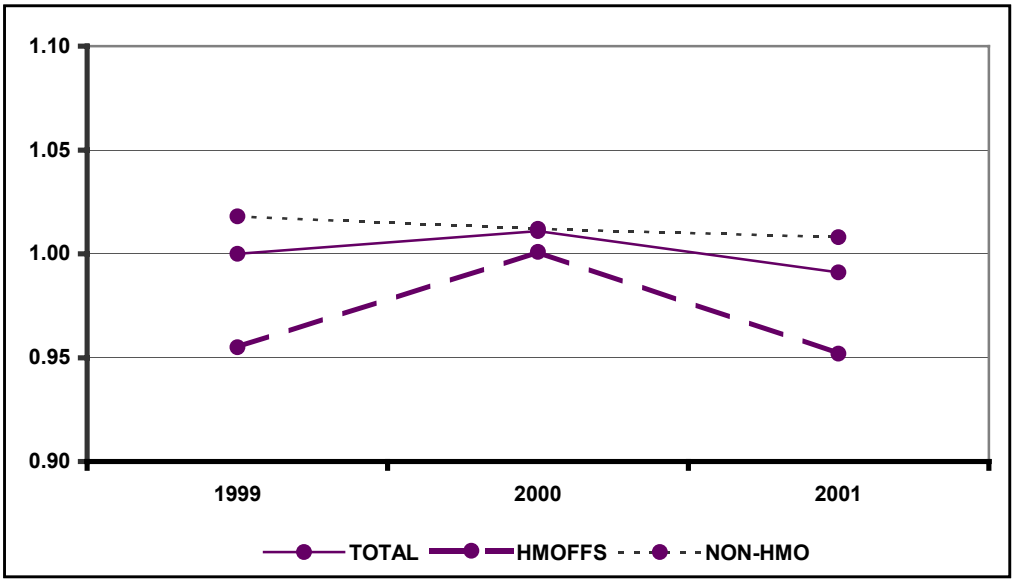
The Medicare-to-private price comparisons provide indirect evidence that average private payment rates fell slightly between 2000 and 2001, using Medicare as the common benchmark. In 2000, private fees were 4 to 5 percent above the Medicare level, but in 2001, they were 1 to 4 percent below Medicare. Medicare raised rates about 5 percent from 2000 to 2001. By inference, then, private rates appear to have fallen slightly on average.

That conclusion can be made completely clear by constructing a price index based solely on private rates. Setting average private fees in 1999 at 1.0 (for the weighted average of HMO fee-for-service payments and non-HMO payments), we can track changes in the average payment level, where each service is weighted in proportion to typical private rates for the service. Compared to the Medicare analysis, this gives a more accurate accounting of private price changes.

The conclusions from this more accurate analysis are not materially different from the Medicare analysis. Total private fee-for-service rates slightly climbed in 2000, but on net the average private rate has changed little between 1999 and 2001. The average 2001

rate is 1 percent below the average 1999 rate. This continues a trend first noted in the 1999 Practitioner Report. Private physician payment rates in Maryland have not changed significantly, on average, since 1998.

Figure 3-1: Index of Private Payment Rates, 1999-2001
(1999 all private plans = 1.00)



CAN THE MCDB PROVIDE INFORMATION ON CURRENT LEGISLATIVE ISSUES REGARDING PHYSICIAN PAYMENT?

As discussed in Chapter 1, in 2000 the Maryland General Assembly passed legislation requiring HMOs to pay nonparticipating physicians at least 125 percent of the rate paid to their contract (participating) physicians for the same service in the same area. In addition, legislation has been introduced requiring that payment for certain nonphysician practitioners equal the payment to physicians for the same service. This section examines the extent to which the MCDB can be used to help inform discussion of these issues.

The first analysis in this section approximates a 125 percent payment threshold, based on average payments by payer, region, and service. This shows the extent to which HMOs appear to be complying with the minimum payment standards for nonparticipating physicians. The second analysis looks at the existing payment differential between physician and nonphysician practitioners, for the highest-volume nonphysician practitioner specialties and for a few services relevant to each nonphysician

specialty. This analysis shows whether current payment differences appear large enough to warrant legislative interest in this issue.

HMO payment to nonparticipating physicians. The analysis proceeded in the following steps, performed separately for 2000 and 2001 data, starting with records for HMO fee-for-service payment to practitioners:

- Extracted HMO records for fee-for-service payments.
- Separated records for participating and nonparticipating physicians.
- For participating physicians, calculated mean payment per service, by payer, region of the state, and service (CPT code). To the extent that some physicians bill below the fee limits of the plan, these means should underestimate the plan maximum payment rates for these services.
- Compared payment for the nonparticipating physicians to these rates, matched by plan, region, and service.
- Identified bills where the payment to the nonparticipating provider was above 125 percent of the rate to the participating providers (or, if not, where payment was made at the billed charge).

Results show that about 2 percent of all fee-for-service physician bills in the MCDB were HMO payments to nonparticipating physicians (Table 3-2). These were heavily concentrated in just a few service categories. Five type-of-service categories accounted for over half such bills, and emergency room visits alone accounted for 23 percent. Of the top five categories of service, these bills constituted a large fraction of care (16 percent) only for emergency room visits.

The typical (median) bill paid by an HMO complied with the legislative standard, but a significant fraction of bills appear to be paid below the 125 percent threshold. After ranking 2001 bills by the ratio of payment to nonparticipating physicians to payment to participating physicians, the ratio on the median (middle) bill was 127 percent (unweighted, each bill counting equally), or 131 percent (weighted by RVUs, so that more complex services count more).

From 2000 to 2001, there appears to have been a substantial increase in the fraction of bills meeting the 125 percent threshold for emergency visits. This resulted in a modest increase in the overall fraction of HMO bills for nonparticipating physicians meeting the threshold.

Table 3-2: Estimated Fraction of HMO Bills to Nonparticipating Physicians Meeting 125% Threshold, by Type of Service, 2000 and 2001

	% Exceeding Threshold		2001 HMO Nonparticipating Physician Bills		
	2000	2001	Number	% of All HMO Nonparticipating Bills	HMO Nonparticipating as % of Total FFS (HMO and Non-HMO) Bills
Total	45%	56%	306,890	100%	2%
Five Highest-Volume BETOS Categories					
Emergency Room Visit	22	60	71,040	23	16
Office Visits – Established	53	55	38,420	13	1
Lab Test	52	54	21,110	7	2
Specialist Visits – Psychiatry	91	92	20,500	7	7
Minor Procedures (miscellaneous)	47	47	14,830	5	2

There are some significant caveats for this analysis. Five Maryland regions were used as the geographic units, but the law does not specify what exactly constitutes the geographic areas that must be used for comparison. Average payment per service to participating providers (for a given plan, region, and service) were used as the basis for calculating the estimated 125 percent threshold. Unlike the remainder of this report, this analysis includes only physicians, and excludes bills from nonphysician practitioners.

Payments for nonphysician practitioners. A second issue before the General Assembly is whether to require insurers to pay nonphysician practitioners at the same rate as physicians. This analysis focused on the narrow technical issue of whether or not the current discount for nonphysician practitioners can be identified using the MCDB.

This analysis relies on one of the weakest parts of the MCDB, the coding of physician specialties by the payers. Although many payers report an accurate specialty designation, others do not, requiring a complex crosswalk between payers' physician rosters and other information to assign a specialty to each physician identifier. This crosswalk has been worked out most thoroughly for the non-HMO plans, whose data are used for the analysis of payments to nonphysician practitioners.

On average, the specialty designations assigned in the MCDB appear to identify practitioners appropriately. Table 3-3 shows the top four procedures for five common nonphysician practitioner specialties (clinical social workers, physical therapists, chiropractors, psychologists, and podiatrists). With some possible exceptions, the specialty designations appear to identify the correct services and identify a substantial discount between physicians and nonphysicians providing the same service. For example, the top services for social workers and psychologists involve psychotherapy, while the top services for physical therapists and chiropractors involve services relevant

to their specialties. The sole exception appears to be podiatrists, where office visits dominate the services provided by individuals identified as podiatrists. With the exception of podiatrists and psychologists, payments for the nonphysician practitioners are somewhat lower than those paid to physicians for the same CPT codes, ranging from 68 to 89 percent of the comparable physician payment.

Table 3-3: Comparison of Per-Service Reimbursements to Physicians and Nonphysician Practitioners, Non-HMO Plans, 2001

Practitioner	CPT code	Description	Average Payment, Non-HMO Plans		
			Physician	Nonphysician Practitioner	Ratio
Clinical Social Workers	90806	Psychotherapy, office, 45-50 min	$106	$79	75%
	90801	Psychiatric diagnostic interview	130	89	68
	90847	Family psychotherapy w/patient	113	82	72
	90853	Group psychotherapy	62	49	79
Physical Therapists	97110	Therapeutic exercises	$43	$36	84
	97140	Manual therapy	34	30	89
	97014	Electric stimulation therapy	20	16	79
	97035	Ultrasound therapy	18	14	79
Chiropractors	98941	Chiropractic manipulation	$41	$28	68
	97014	Electric stimulation therapy	20	15	76
	97140	Manual therapy	34	28	82
	98940	Chiropractic manipulation	33	25	75
Psychologists	90806	Psychotherapy, office, 45-50 min	$106	$97	91
	90801	Psychiatric diagnostic interview	130	113	87
	90853	Group psychotherapy	62	68	110
	90847	Family psychotherapy w/patient	113	95	85
Podiatrists	99213	Office/outpatient visit, est	$44	$42	96
	99212	Office/outpatient visit, est	33	31	92
	99203	Office/outpatient visit, new	73	69	94
	99202	Office/outpatient visit, new	54	50	92

Note: CPT codes and descriptions copyright American Medical Association.
The physician comparison group included all physicians who billed the relevant code.

Payments relative to costs. A final question at issue under Maryland law is the relationship between provider payments and practitioners' costs. The General Assembly has expressed its interest in comparing payment to cost, by type of payer, for practitioners' services. As with the other issues regarding minimum payment levels, the concern that payments cover costs is particularly acute for physicians working in settings that require them to accept all patients, such as emergency departments and trauma centers.

The concept of the cost of care is not as clear-cut for practitioner services as it is for hospitals or other health care facilities. Hospital costs reflect payments for supplies and

labor, and costs of all significant inputs to care are captured in the hospital's accounting system. Many physician practices, by contrast, are run as proprietorships or partnerships. For those practices, the distinction between cost and income is blurred. Typically, any difference between practice revenue and practice expense becomes the physicians' income.

Medicare provides one publicly available standard against which to assess adequacy of payment. For each service, the components of Medicare's RVUs reflect an estimate of practice expenses, the cost of malpractice insurance, and an allowance for value of the physician's time (work) involved.

Table 3-4 shows payment per RVU, by specialty, for the non-HMO plans (where reporting of specialty codes is most accurate). Among the specialties shown (all identifiable specialties accounting for at least 1 percent of spending excluding independent laboratories), pathology and emergency medicine and gastroenterology rank as the most highly paid specialties per RVU of care.[20] Clinical social work, chiropractic, pediatrics, and dermatology appear as the least well-paid specialties per RVU of care.

[20] The high value for pathology data probably reflects the under-reporting of units of care on the records for pathology services. Under-reported amount of care results in overstated payment per unit of care.

Table 3-4: Payment per Relative Value Unit (RVU), by Specialty, Non-HMO Plans, 2001

Classification	Payments ($millions)	Payment Per RVU, 2001
Nonphysician Practitioners	**$133**	**$35.98**
Physical Therapist	30	42.44
Chiropractor	29	32.55
Psychologist	17	37.08
Clinical Social Worker	14	30.00
Podiatrist	13	34.12
Other Specialty	5	37.12
Physicians, All	**$684**	**$38.16**
Physicians, Medical Specialties	360	37.24
Internal Medicine	83	35.74
Pediatrics	57	33.08
Family Practice	41	33.97
Cardiology	34	40.77
Emergency Medicine	22	45.96
Oncology	22	34.76
Dermatology	21	33.41
Gastroenterology	20	44.93
Psychiatry	17	42.70
Neurology	9	40.81
Allergy & Immunology	7	34.70
Endocrinology Medicine	6	38.60
Physical Medicine & Rehab	5	41.60
Physicians, Other Specialties	189	38.84
Obstetrics/Gynecology	76	37.30
Pathology	19	50.78
Radiology	94	37.68
Physicians, Surgical	135	39.67
Orthopedic Surgery	38	38.52
General Surgery	27	43.03
Ophthalmology	20	34.05
Otology/Laryngo/Rhino	15	38.78
Urology	13	39.47
Surgical Specialty	10	43.42
Plastic Surgery	7	43.14

4. Summary and Conclusions

This section of the report briefly lists the main findings of the analysis of the 1999 through 2001 MCDB data.

- Average practitioner fees by private payers in Maryland have been more or less unchanged since 1999. Medicare fees, by contrast, rose steadily through 2001. The net effect of these changes is that private payers in Maryland now pay practitioner fees that averaged about 2 percent less than Medicare's rates in 2001. This varies substantially by type of service, with private rates for office visits below the Medicare level, and private rates for other services generally above the Medicare level.
- For the non-HMO plans, practitioner service use from 2000 to 2001 increased more or less across-the-board. Service growth was higher for medical than for surgical specialties, and for outpatient sites of care than for inpatient sites. Spending on nonphysician practitioners grew faster than spending for physicians' services.
- The typical HMO payment to a nonparticipating physician exceeds the statutory threshold of 125 percent of payment to participating physicians. The fraction of bills meeting that threshold increased between 2000 and 2001. A substantial fraction of bills still do not appear to meet that threshold.
- In some instances, Maryland insurers pay less to nonphysician practitioners than to physicians for the same services. On average, payment rates per RVU are about 10 percent lower, although some nonphysician groups have nearly comparable rates. However, significant variation in payment per RVU exists across physician specialties. Payment per RVU for pediatricians and family practice physicians are below the level received by some nonphysician practitioners. Payer policies that reimburse procedures more favorably than office visits play as big a role as discounting of nonphysician services in explaining reimbursement differences among provider groups. Recent improvements in the coding of specialty designations on the MCDB will allow MHCC to examine these questions in the future.

Appendix A

Payers Contributing Data to This Report

TABLE A-1: PAYERS CONTRIBUTING DATA TO THIS REPORT

PAYER NAME
Aetna Life Insurance Co.
Aetna U.S. Healthcare, Inc.
Allianz Life Insurance Co. of North America
American Republic Insurance Co.
Carefirst-BCBS of DC, Inc.
Carefirst-BCBS of MD, Inc.
CIGNA Healthcare Mid-Atlantic Inc.
Educators Mutual Life Insurance Co.
Fortis Insurance Co.
Golden Rule Insurance Co.
Graphics Arts Benefit Corporation
Great-West Life and Annuity Insurance Co.
New England Life Insurance Co.
Guardian Life Insurance Co. of America
Kaiser Permanente of the Mid-Atlantic States
MAMSI Life and Health Insurance Co.
Maryland Fidelity Insurance Co.
MD-Individual Practice Association, Inc.
Metropolitan Life Insurance Co.
Optimum Choice Inc.
The Preferred Health Network
Coventry Health Care of Delaware, Inc.
Prudential Health Care
Prudential Insurance Co. of America
State Farm Mutual Automobile Insurance Co.
United Healthcare Corp.
Trustmark Insurance Co.
Union Labor Life Insurance Co.
United Healthcare of the Mid-Atlantic, Inc.
United Wisconsin Life Insurance Co.

Appendix B

Methods and Technical Notes

Methods and Technical Notes

The 1999-2000 Practitioner Report provided detailed information on the methods used to construct and analyze the database. That report also presented sensitivity analyses showing that modest changes in the methods had little impact on the results. This year, the methods are only briefly summarized. Readers interested in a detailed description of methods should consult the 1999-2000 Practitioner Report.

Limitations of the MCDB

While the MCDB records include most of the practitioner care provided to privately insured Maryland residents, there are some significant omissions and limitations. Readers should be aware of the limitations of the MCDB and caveats for this analysis.

First, certain population groups are not represented in this analysis. Those nonrepresented groups include:

- Maryland residents who have primary insurance through a private plan but (1) are 65 years or older or (2) are insurees whose private plan is not required to submit data to the MHCC.
- Maryland residents enrolled in Medicare.
- Maryland residents enrolled in Medicaid.
- Maryland residents who are uninsured.

Second, for the plans and populations covered (i.e., under 65 privately insured), some categories of service are not reported in the underlying database. These include:

- Capitated primary care services. Within capitated services, only specialty care services are reported.
- Carve-outs for self-funded plans (for example, psychiatric care paid through a psychiatric benefit management firm).

Third, data reporting by the HMO plans is substantially different from reporting by the non-HMO plans. For the non-HMOs, reported claims data show payments and services for essentially all practitioner care. For HMO plans, two different methods are used to report the data. HMO services paid on a fee-for-service basis are reported on claims data, similar to the non-HMO plans. Specialty care provided under capitation

arrangements is reported on encounter data, providing information on services but not payments. Primary care under capitation arrangements is not reported. Because of this, only a subset of all HMO care is captured in the MCDB and variations in data reporting practices appear to have a much stronger influence on the HMO data than the non-HMO data. HMO plans' data reporting continues to improve, with total reported payments and services rising faster than the actual growth in the underlying care. For this reason, the HMO data must be substantially adjusted to provide any reasonable estimate of trends in service use.

Fourth, the only count of persons directly available for this analysis is a count of persons using services, not the count of all individuals enrolled in these plans. Each insurer develops a set of unique (and encrypted) patient identifiers to allow MHCC to identify individuals but maintain the confidentiality of the data. This has historically been a weak part of the data reporting system. Individuals may be counted or not based on the use of a single service during the year, and some insurers do not routinely track individuals separately within families. Paradoxically, substantial improvements in payers' data reporting make it difficult to compare current-year and prior-year data. The large apparent increases in service users reported here may, in part, be an artifact of improved data reporting.

Fifth, all payment information is based on the amounts that payers reported on the claims data. To the extent that payers have bonuses or other practice-level payment arrangements not recorded on the claims, payments may be over- or understated.

Finally, only a subset of payments and services is used for the analysis of spending and pricing trends. To provide an accurate estimate of payments per service, about 15 percent of bills that would otherwise be eligible for the analysis were screened out. These were bills where payment did not reflect full payment for the underlying service, or where payments appeared extremely small or extremely large compared to the average. Examples include payment adjustment records, bills for use of a facility (rather than for practitioners' services), and minor services such as assistance at surgery (rather than payment for the surgery itself). For this reason, spending shown in the tables is modestly lower than actual total expenditures for practitioners' services.

CONSTRUCTION OF 10 PERCENT SAMPLE FILE

All calculations in this report are based on a 10 percent random sample of individuals in the database. This is adequate to give accurate estimates of totals for the entire database,

but substantially reduces data processing costs. Totals calculated from the sample file were multiplied by 10 to estimate totals for the entire file.

CLAIMS NOT USED FOR THE PAYMENT ANALYSIS

The screening of the raw MCDB took place in two steps: the first step eliminated records clearly not relevant to this analysis, and a second step eliminated records with payment-per-service data that could not be used to calculate payment levels for the private payers. Claims not relevant to the analysis included claims for services not provided in 2001, claims that were not practitioner bills (for example, payments to facilities), and claims where the private insurer was the secondary payer, including all claims for the over-65 population (where Medicare is almost always the primary payer.) Other claims were screened out due to incomplete or anomalous information or payment amounts. These included CPT codes outside the range of analysis (for example, dental claims), claims for partial payment or minor services associated with a more expensive major service (for example, claims for assistance at surgery), and claims with outlier payments vastly higher or lower than the average private payment for a service. These screens removed between 15 and 20 percent of bills that otherwise would have been in-scope for this analysis.

In addition, one payer reported data fully in 2001 but reported only a small fraction of relevant data for 2000. This payer had to be eliminated from the 2001 data to avoid significantly overstating growth in service use from 2000 to 2001.

RELATIVE VALUE UNITS, CASE-MIX, AND OTHER ADJUSTMENTS

The development of the price and volume estimates involved several points of methodology requiring imputation or judgment. These methods are described briefly below.

Medicare RVUs. For this report, the 2001 Medicare Fee Schedule transitioned RVUs were used and were matched to the 2001 data, while 2000 Medicare RVUs were used on the 2000 and 1999 data. Because Medicare's RVUs are changing as it adjusts its practice expense payments, some changes in this report may reflect modest differences between the 2000 and 2001 RVUs applied to the data.

RVUs were matched to the MCDB claims by CPT code and place of service, following Medicare's methodology. For radiology and other services for which bills might represent either payment for professional component or payment of both professional and technical fees, RVUs were matched by CPT and modifier indicating the type of bill (professional only or professional plus technical bill).

SERVICES WITHOUT MEDICARE RVUS

RVUs had to be imputed for services not listed in the Medicare Fee Schedule. These included the following:

- Clinical laboratory tests. The Medicare Lab Fee Schedule was used to provide relative values for clinical lab tests. RVUs for lab tests were approximated by dividing Medicare's payment for each lab test by the 2001 Medicare Fee Schedule conversion factor. This put the inputed lab test RVUs onto the same scale as all the other RVUs.
- Other services with standard codes. Alphanumeric HCPCS codes and certain other CPT codes not used by Medicare were also given imputed RVUs. For each such code, average private payment per service was used to impute an RVU. The RVU was computed by "deflating" the average payment per service for that code. It was deflated by the typical private payment per RVU for similar codes, that is, for other codes in the same Berenson-Eggers Type of Service (BETOS) category. This forces the payment per RVU for the imputed RVUs to be identical to payment per RVU for similar codes for which the RVUs were not imputed. Using this approach, the estimated private conversion factor within each BETOS category should be the same whether the codes with imputed RVUs are included or excluded.
- Nonstandard codes. Codes outside of CPT or HCPCS for which payers did not explicitly identify the service provided (and for which different payers might use the same code to represent different services) were not given RVUs. These codes are dropped from all analyses of payment per RVU.

Appendix C

FIGURE C-1:
MAP OF MARYLAND REGIONS